

REMARKS

Claims 1, 2, and 21 to 35, 41, 42, 44 to 48, and 50 to 53 are currently pending and being considered in the present application (since claims 3 to 20 were previously withdrawn in response to a restriction requirement and later canceled).

In view of the following, it is respectfully submitted that the presently pending and considered claims are allowable, and reconsideration is respectfully requested.

Claim 53 was rejected under the second paragraph of 35 U.S.C. § 112.

In particular, the Final Office Action objected to the term “turcun. Claim 53 has been corrected to refer to “one of Viton™ and Turcan™”, which are rubber type products. Claims 23, 42, 50, and 52 has also been corrected in this regard. It is therefore respectfully requested that the indefiniteness rejection be withdrawn.

Claims 1, 2, 21 to 33, 41, 42, 45, 46 and 50 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5, 839,349 (“Volz”) in view of German Published Application No. 100 18 143 (“Massler I”), the Background Information (at page 2, lines 20 to 34) and the Encyclopedia Britannica Online (for fluoroelastomers).

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co.*,

Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Claim 1 includes the features in which a layer thickness of the three layers together is approximately 0.5 micrometers to 4 micrometers at a micro-hardness of approximately 4 to 40 GPa, and in which the rotational motion of a drive is transmitted via the at least one shaft to the at least one piston, in which a section of the metal housing abuts the at least one piston next to the at least one shaft and guide the movement of the at least one piston.

Any review of Massler and Volz, whether taken alone or combined, readily confirms that the applied references do not disclose or even suggest the above-discussed features of claim 1. As to the feature in which a layer thickness of the three layers together is approximately 0.5 micrometers to 4 micrometers at a micro-hardness of approximately 4 to 40 GPa, the Final Office action offers no more than broad conclusory and unsupported assertions as to these specific features. , since the applied references do not disclose these features.

Claims 41, 44, and 50 further provide that a coefficient of friction of the functional layer amounts to approximately 0.05 to 0.3. Nothing in the applied references discloses or suggests this feature, as provided for in the context of the presently claimed subject matter. Accordingly, these claims are allowable for these further reasons.

As further regards each of the obviousness rejections, it is respectfully submitted that the cases of *In re Fine*, *supra*, and *In re Jones*, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), make plain that the Office's generalized assertions that it would have been obvious to modify or combine the references do not properly support a § 103 rejection. It is respectfully submitted that those cases make plain that the Answer reflects a subjective "obvious to try" standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. In particular, the Court in the case of *In re Fine* stated that:

The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. This it has not done. . . .

Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . One cannot use hindsight

reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

In re Fine, 5 U.S.P.Q.2d at 1598 to 1600 (citations omitted; italics in original; emphasis added). Likewise, the Court in the case of In re Jones stated that:

Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. . . .

Conspicuously missing from this record is any evidence, other than the PTO's speculation (if it be called evidence) that one of ordinary skill . . . would have been motivated to make the modifications . . . necessary to arrive at the claimed [invention].

In re Jones, 21 U.S.P.Q.2d at 1943, 1944 (citations omitted; italics in original).

That is exactly the case here since it is believed and respectfully submitted that the Answer and the Office Actions to date offer no proper evidence, but only conclusory hindsight, reconstruction and speculation, which these cases have indicated does not constitute evidence that will support a proper obviousness finding.

Also, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a “technologically simple concept” — which is not the case here — there still must be some finding as to the “specific understanding or principle within the knowledge of a skilled artisan” that would motivate a person having no knowledge of the claimed subject matter to “make the combination in the manner claimed,” stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed. In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper *prima facie* case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (emphasis added). Here again, there have been no such findings to establish that the features discussed above of the rejected

claims are met by the reference relied upon. As referred to above, any review of the reference, whether taken alone or combined, makes plain that the reference simply does not describe the features discussed above of the rejected claims.

Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide proper evidence of a motivation for modifying or combining the references to provide the claimed subject matter.

Thus, the proper evidence of obviousness must show why there is a suggestion as to the reference so as to provide the subject matter of the claimed subject matter and its benefits.

In short, there is no proper evidence that the reference relied upon, whether taken alone or otherwise, would provide the features of the claims discussed above. It is therefore respectfully submitted that the claims are allowable for these reasons.

As still further regards all of the obviousness rejections of the claims, it is respectfully submitted that a proper *prima facie* case has not been made in the present case for obviousness, since the Answer and the Office Actions to date never made any findings, such as, for example, regarding in any way whatsoever what a person having ordinary skill in the art would have been at the time the claimed subject matter of the present application was made. (See *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the “factual predicates underlying” a *prima facie* “obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art”)). It is respectfully submitted that the proper test for showing obviousness is what the “combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art”, and that the Patent Office must provide particular findings in this regard — the evidence for which does not include “broad conclusory statements standing alone”. (See *In re Kotzab*, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1999) (obviousness rejections reversed where no findings were made “concerning the identification of the relevant art”, the “level of ordinary skill in the art” or “the nature of the problem to be solved”))). It is respectfully submitted that there has been no proper showings by the Answer, the Office Actions to date or by the Advisory Action.

In fact, the present lack of any of the required factual findings forces both Appellants and any Appeals Board to resort to unwarranted speculation to ascertain exactly what facts underly the present obviousness rejections. The law mandates that the allocation of the proof burdens requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (*See In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Examiner bears the initial burden of presenting a proper *prima facie* unpatentability case — which has not been met in the present case. (*See In re Oetiker*, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

Still further, the pump of Volz, for example, supposedly includes a “a metal piston (2, 3) and an elastomeric sealing element (Shown in Fig on Pistons 2, 3).” (*See* Office Action at pg. 2). However, as can clearly be seen in the Figure of Volz, the housing (1) of Volz does not abut the piston (2, 3) next to a shaft (6) and guide the pistons’ movement as provided for in the context of the presently claimed subject matter.

Accordingly, it is respectfully submitted that claim 1 is allowable for at least the above reasons, as are its dependent claims.

In view of all of the foregoing, withdrawal of the rejections is respectfully requested.

Claims 34, 35, 47 and 48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5, 839,349 (“Volz”) in view of German Published Application No. 100 18 143 (“Massler I”), the Background Information (at page 2, lines 20 to 34) and the Encyclopedia Britannica Online (for fluoroelastomers) as applied to claims 1, 45 and 50 above, and further in view of U.S. Patent No. 5, 577,896 (“Harada”).

Claims 34, 35, 47 and 48 depend from claim 1, and they are therefore allowable for the same reasons, since the Harada reference does not cure – and is not asserted to cure -- the deficiencies of Volz and Massler as to claim 1, as presented. Withdrawal of the obviousness rejections is therefore respectfully requested.

As further regards all of the obviousness rejections, any Official Notice is respectfully traversed to the extent that it is maintained and it is requested that the Examiner provide specific evidence to establish those assertions and/or contentions that may be supported by the Official Notices under 37 C.F.R. § 1.104(d)(2) or otherwise. In particular, it is respectfully requested that the Examiner provide an affidavit and/or that the Examiner

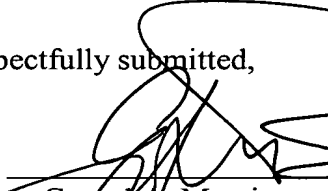
provide published information concerning these assertions. This is because the § 103 rejections are apparently being based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported assertions. (See also MPEP § 2144.03).

Accordingly, claims 1, 2, and 21 to 35, 41, 42, 44 to 48, and 50 to 53 are allowable.

CONCLUSION

It is therefore respectfully submitted that all of the presently pending and considered claims are allowable. It is therefore respectfully requested that the rejections (and any objections) be withdrawn, since all issues raised have been addressed and obviated. An early and favorable action on the merits is therefore respectfully requested.

Respectfully submitted,

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